# Complementary and alternative medicine: what the public want and how it may be delivered safely and effectively

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## Complementary and alternative medicine: what do we know and what do we need to know?

The prevalence of complementary and alternative medicine (CAM) use is widespread in the general UK population with Thomas *et al*. suggesting that approximately 10% of the UK population use CAM each year and 50% are lifetime users.[1] This prevalence increases dramatically when we consider specific disease categories such as cancer and fibromyalgia; almost 90% of patients with fibromyalgia have used or are using some form of complementary medicine,[2] and approximately 50% of people diagnosed with cancer use some form of CAM to complement conventional cancer management.[3] This is particularly so for the more chronic long-term cancers such as breast and prostate where CAM use appears to be twice as common as in the general cancer population.[3]

This widespread use is sometimes evidence-based and some CAM therapies, such as acupuncture, are relatively well-integrated into the NHS in physiotherapy departments and pain clinics as a consequence of published research.[4–6] However, more commonly we have too little evidence upon which to make a rational decision. The recent Arthritis Research Campaign report[7] provides a good example of this confusion. It concludes that while there are a plethora of herbal and nutritional supplements available to the general public only some may be effective and all need more thorough and rigorous evaluation with respect to both their safety and effectiveness.

Critics[8–10] argue that CAM simply is not worth researching because it is fundamentally unscientific, viewing these approaches as a group of 'unproven and implausible therapies'. A more rational approach that thoughtfully responds to the public's clear enthusiasm for, and acceptance of, CAM must be to suggest that we do need a thoughtful and high quality research strategy. This will help us to better understand why the general public is attracted to this area in such large numbers and appears to feel that these diverse practices are both safe and effective. There is also a public health issue in relation to the manufacture, safety and effectiveness of a whole range of 'medicinal' products as well as their safe therapeutic provision. This will help us understand a great deal about the population's health beliefs and may also give us insights as to how people enable the self-management of chronic illness often using CAM and conventional medicine together.

At present we have some evidence for a few CAM interventions but very little data about most of them. We wish to address the issues that surround the future of CAM research in the UK in this article and place them in a health services research context.

## UK research initiatives: the current situation

Our recently completed survey illustrates some very interesting points.[11] In the 2001 Research Assessment Exercise (RAE), designed to evaluate the quality of research within all UK academic departments, it appeared that only two or three individuals working in CAM, were returned as research active. The most recent RAE in 2008 saw the return of 15.5 full-time equivalents, even though many individuals working in this area are part-time.

Most research groups were of average academic quality but some returns involved researchers that were part of 4* units (internationally high quality).[11] This represents a dramatic increase in both overall activity and research quality. The House of Lords' Report in 2000[12] called for the development of research capacity within CAM so that we could better understand not only the issues involved in patients making these choices, but also whether and how these therapies may produce their specific effect. The volume of research published worldwide in areas such as acupuncture and herbal medicine over the last decade has been substantial and has indeed begun to answer some of these questions. Although impossible to prove directly, the development of CAM research in the UK was almost certainly catalysed by the Department of Health capacity building doctoral and postdoctoral fellowships, which were initiated in response to the House of Lords' recommendations.[12] Within the last RAE period we are aware that there have been at least 80 PhDs registered or completed in UK institutes of higher and further education[11] covering a very broad range of CAM interventions from acupuncture to spiritual healing and using a variety of investigative approaches. While a small but significant proportion of these have been government funded, the major PhD funders during this period have been the universities at which the students were registered. This in part may have been a response to the excellent critical and thoughtful research methods courses that now form an essential part of university-based undergraduate CAM education. These data, collected through the organizations that link these universities, CAM STrategy Research And Development (CAMSTRAND), and the Research Council for Complementary Medicine (RCCM), suggest a substantial growth in capacity, quality and impact in this field during the last decade. They appear to suggest that CAM researchers are rising to the challenge of becoming effective and high quality contributors to medical research and are beginning to build the capacity to develop research in this area.

## The international perspective: is the UK out of step?

In 1991 the US National Institutes of Health set up the Office of Alternative Medicine in response to public demand and political pressure. Its aim was to thoroughly investigate so-called alternative medicine. This has now resulted in a National Centre for Complementary and Alternative Medicine (NCCAM) which distributes in excess of $100 million in research funding through centres of academic excellence. These American centres have taken the lead in developing an international research agenda and are now able to produce substantial insights into how and why complementary medical approaches such as acupuncture may operate as well as addressing their clinical effects. We have much to learn from this thoughtful, rigorous and focused strategic approach. It provides us with insights as to how we may better and more safely manage chronic benign illnesses, such as persistent pain and irritable bowel,[13,14] which in turn could have a substantial impact on a broad spectrum of chronic disease management, particularly in primary care. The Australians have adopted a similar initiative in establishing centres of excellence as part of their national strategic public health research policy through the National Institute of Complementary Medicine.

The European Union (EU) estimates that 150 million people are using CAM each year within the community. In some countries this provision is clearly funded by the health insurance systems, for instance homeopathy in France and acupuncture in Germany. However, the provision of these medical services is patchy and uncoordinated within Europe. Consequently, as part of EU health strategy, a recent Framework 7 grant (€1.5 million) has been awarded to map CAM use and provision within the community and develop the basis for health policy with respect to CAM within the EU, as well as establishing the principles and strategy for EU research in this field.

## Our future: public involvement in science, but not in CAM research?

We primarily need to understand why these therapies are so popular, what it is about them that appears to be effective, and how and why they seem to be well-integrated into the individuals' approach to health maintenance and illness self-management. This will allow us to understand more about CAM which in turn will provide us with unique insights about our approach to illness

and its management. We clearly have some research capacity in the UK which has expanded over the last decade producing trained researchers and some research groups of considerable academic excellence but we are failing to capitalize on this asset. The most recent UKCRC report shows that there was absolutely no investment in complementary medicine research during the last audited year (2007–2008) and specific enquiries elicited no further information on this matter (personal communication). In effect, having developed the capacity to have a thoughtful and strategic UK CAM research programme, we appear to have decided to abandon this developing area without any public discussion in spite of transparent public need and demand.

This is further complicated by the fact that the UK Department of Health, as another consequence of the House of Lords report, is actively promoting the regulation of the CAM professions. Osteopathy and Chiropractic are now statutorily regulated with the imminent regulation of Acupuncture and Herbal medicine now being publically discussed. Such political and professional changes demand that within an evidence-based medical culture we specifically address the issues that surround the publicly supported, and sometimes publically funded, provision of these therapies.

The mantra of public involvement in science has led a number of innovative research charities, such as Cancer Research UK and the Arthritis Research Campaign, to specifically focus on the substantial number of individuals who actively seek complementary healthcare. Not only does this play significantly to their constituency, it is also able to provide answers to the problems faced by the patients they represent. If people are contributing financially towards cancer or arthritis research, and many of them are using CAM as part of their therapeutic regime, then the relevant charities need to respond if only to continue to receive donations and fulfil their public and charitable obligations. Charities, however, can only achieve a very limited strategic impact on national research policy without government support.

## Going forward?

Why would the National Institute for Health Research (NIHR) not wish to capitalize on the research foundation that the government has already funded within CAM? The provision of doctoral and postdoctoral research fellowships provided a boost to the whole field and initiated a positive and rigorous approach to this area. Surely if such large numbers of people, with often serious illness, turn to CAM, and we are increasing and publically registering the CAM professions, we need to improve the quality of service provision and the science that underpins these approaches. Why is CAM considered such an 'orphan' within UK medical research when the therapies are so commonly available and a matter of such heated public and academic debate? If we now publically abandon this area then we will never be able to shine any light on the divisive and sometimes thoughtless debates that occur in the public and research literature. However much vitriol is directed at those who research and practice CAM, the public still use these approaches to help them self-manage chronic illness and life-threatening conditions such as cancer.[3,15] We desperately need to understand why this is happening and what it 'means' to the patients using these approaches. Research has suggested that people with cancer wish to discuss their integrated cancer care with their oncologist[16] but sometimes perceive that this is inappropriate and likely to damage their therapeutic relationship with their oncologist who they see as their main carer.[16] This division serves no-one well, least of all the patient. It is only through understanding these issues and putting entrenched positions to one side that we will achieve better patient care in this area and improve communication between patient and those diverse clinicians who provide their care. This approach must be research-led and follows directly from the government's public health strategy in relation to professional regulation within this field. Why would we wish to abandon CAM research when we have made such a good start and when all it seems that that we will achieve through this approach might be to enhance our ignorance and play into the hands of charlatans who can so easily make unsubstantiated claims knowing that there will never be any realistic scientific investigation of their unethical behaviour?

While CAM may be unpopular with some, it appears to be here to stay. We can behave in an ostrich-like manner and ignore the obvious but the wisdom of history tells us that, as with most problems, doing nothing will ultimately make this issue more difficult to solve. We desperately need

the government to fulfil its promise of public involvement in medical research and help the CAM research community develop a thoughtful national CAM research strategy in the UK.

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